Mission Statement:

To promote excellence in care for the injured patient, through provision of scientific forums and support of musculoskeletal research and education of orthopaedic surgeons and the public.
2015 OTA Annual Meeting:
- October 7-10, 2015 San Diego, California
- Germany is guest nation
- Past guest nations:
  - Italy, Mexico, China, Brazil
- Future guest nations:
  - India (2016), UK (2017)
2015 OTA – SIGN Fellows:
- Bhaskar Pant and Saju Pradhan

2015 Best International Forum Paper:
Edmund Eliezer
“Predictors of Reoperation for Adult Femoral Shaft Fractures Managed Operatively in Sub-Saharan Africa”
## Educational OTA Web Resources

### Search OTA Educational Materials by Anatomy

<table>
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<th>UPPER EXTREMITY</th>
<th>SPINE</th>
<th>PEDIATRICS</th>
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**TABLE**

### Search the OTA Website by Resource

- **Annual Meeting Abstracts**
  Search abstracts by year, or scroll to the bottom of the page to search ALL abstracts.
- **Trauma Evidence Based Medicine Resource List**
- **Orthopaedic Knowledge Update: Trauma 3**
- **Orthopaedic Knowledge On-Line - OKO**
  (note: you must login using your AAOS id to view lectures)
- **OTA Residents Comprehensive Course Lectures with audio**
- **Residents Comprehensive Fracture Course Lectures**
- **Residency Core Curriculum Lectures**
- **Residency Program Curriculum Content**
- **Bibliography of Suggested Textbook Reading for Residents**
- **Case Discussion Archives**
- **OTA Fracture & Dislocation Compendium**
- **OTA Survey Archives and Policy**
Collection of over 80 lectures to be used for resident education

1/3 of lectures updated annually
Email Case Discussion Forum

Discussion Forums

OTA Electronic Discussion List

To subscribe click here: http://www.ota.org/about/sub_ota_list.cfm
To un-subscribe click here: http://www.ota.org/about/unsub_ota_list.cfm
Discussion listserve address: ORT-L@www2.aaos.org
Orthopaedic Trauma Evidence Based Medicine Resource List

Compiled and reviewed by the OTA Project Team for Evidence-Based Medicine
Committee Chair: William Obremskey, MD
September 2007

Topic Index (please click on the topic you are interested in researching, or scroll to view the entire list).

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<td>General</td>
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OTA Member Benefits

• OTA Newsletter: Fracture Lines
• JOT Discount Subscription
• Meeting Registration Discount
### Membership Benefits

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<td>Serve as Faculty at OTA Sponsored Courses</td>
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Being part of the ortho trauma community = priceless!
How to Apply

• Go to www.ota.org
• Look under About > Membership > Apply for Membership
• Complete Form (Download and Upload to OTA Website)
• Upload CV and a recent picture
• Make payment of $50 on-line (Brazil is free this year!)
• Submit 2 sponsors forms
  • Must be OTA Active, Clinical, Research or International Members
  • If need additional help getting a sponsor, e-mail: miclaut@orthosurg.ucsf.edu
Why Join? Valuable Association Membership

• Educational Opportunities
• Professional Development
• Meeting Discounts

Apply online: Two Deadlines: November 1 and May 1
Theodore Miclau, MD
President, Orthopaedic Trauma Association
Professor and Vice Chairman
UCSF Department of Orthopaedic Surgery
Director, Orthopaedic Trauma Institute
Chief, San Francisco General Hospital
Disclosures

Institution Research/Education:
OTA; NIH; CIRM; FOT; OTCF; AO; MTF; Stryker; Synthes

Consultant/Designer:
Amgen, Acelity

Boards/Officer/Committee:
OTA, ORS, SFGH Foundation
What is the Problem?

- Enormous:
  - Burden of Disease (and growing)
  - Disparity of Healthcare Workers
  - Disparity of Resources and funding for trauma
  - Disparity of Funding for LMIC
Global BOD of Trauma  
(Not Including Chronic MSK Conditions)

<table>
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<tr>
<th>Condition</th>
<th>DALYs Percentage</th>
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<tr>
<td>Injuries</td>
<td>11.2% of DALYs</td>
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<tr>
<td>TB</td>
<td>1.99% of DALYs</td>
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<tr>
<td>Diarrhea</td>
<td>3.61% of DALYS</td>
</tr>
<tr>
<td>Malaria</td>
<td>3.33% of DALYS</td>
</tr>
<tr>
<td>Cancer</td>
<td>7.6% of DALYs</td>
</tr>
<tr>
<td>HIV</td>
<td>3.29% of DALYS</td>
</tr>
</tbody>
</table>

Injuries alone account for more DALY’s than TB, Malaria, and HIV COMBINED
Two thirds of the world's population have no access to safe, affordable surgery

**Date:** April 27, 2015

**Source:** The Lancet

**Summary:** Millions of people are dying from common, easily treatable conditions like appendicitis, fractures, or obstructed labor because they do not have access to, or can't afford, proper surgical care, according to a major new report. The new estimates suggest that number of people worldwide who are unable to access basic surgery and anaesthesia is more than twice as high as previously thought.
Shortage of health care providers is a fundamental underlying issue in global health. Africa alone is estimated to lack 1M health care providers.
What Are the Other Problems?

- Enormous:
  - Burden of Disease (and growing)
  - Disparity of Healthcare Workers
  - Disparity of Resources
  - Disparity of Funding for LMIC

- Where is the money? Who knows
- Who is “responsible” for education? No one
- How do you measure success? Hard
- How can “tech” bridge the gap? Cheap $ solutions
UCSF Experience
Volunteer Initiatives

• Orthopaedics Overseas  
  - (Richard Coughlin, Board Chair)
• Oberlin Dance Collective  
  - Dance Medicine Clinic
• SF Mounted Sheriff Program
• Community Activities  
  - Mission Youth Soccer  
  - Playsafe
UCSF International Orthopaedic Elective

- Supported by SFGH staff extramural fundraising efforts
- One month elective, PGY-4
- Bedford Orthopaedic Center, Umtata, South Africa
- Developing world musculoskeletal conditions (i.e., polio, TB, osteomyelitis, pediatrics, and sub-acute fxs)
- Standard for other residency programs in the US
UCSF International Orthopaedic Elective

- Since the beginning 2000...
  - 35 of 47 (75%) of residents have “elected”
    - 31 went to Mthatha, South Africa
    - 2 went to Managua, Nicaragua
    - 1 Blantyre, Malawi
    - 1 Wenzhou, China
- 3 joined Ortho Overseas board
- 4 joined leadership giving program
How We Would Be Most Effective?

- Past Models of Orthopedic Surgery and Global Health
  - Volunteerism and Service
  - Short-term Missions

- The “New Orthopedic Surgery and Global Health”
  - Develop Internal Infrastructure and Sustainable Partnerships
  - Research, Education and Capacity Building
  - Advocacy
IGOT was founded by the faculty and residents of the UCSF Department of Orthopaedic Surgery to improve the healthcare of the burden of musculoskeletal disease in underserved populations through the development of sustainable programs.
Institute for Global Orthopaedics and Traumatology

Mission: to lessen the burden of musculoskeletal conditions and injuries in developing countries in a sustainable, capacity-building way through teaching, training, and research
Mend the Injured

Inspire Innovators

Clinical Research Center
Surgical Training Facility (Procedure Based Research)

EMPOWER LEADERS

We Care for patients with traumatic musculoskeletal injuries and non-traumatic orthopaedic conditions at these centers throughout the Bay Area.

Restore Lives

UCSF Residency and Trauma Fellowship Training
Institute for Global Orthopaedics and Traumatology (IGOT)
Surgical Education Courses (Surgical Training Facility)
Surgical Management and Reconstructive Training (SMARTS)
International San Francisco Trauma Course
International Resilience, Efficacy and Global Scholars Program
Bay Area Global Health Film Festival and Community Education Programs
International Fellowships and Visiting Obstetricians
Functional and Orthotic & Prosthetic Services
Global Research Collaborations and Clinical Research Courses

www.orthotrauma.com
Electronic Communication

**Web page**

- **OTI Channel:**
  - [https://www.youtube.com/user/orthosurgery](https://www.youtube.com/user/orthosurgery)

**Videos**

- **IGOT Channels:**
  - [https://www.youtube.com/channel/UCfj2hzNFiS1akAknwqnZvdw](https://www.youtube.com/channel/UCfj2hzNFiS1akAknwqnZvdw)
  - [https://vimeo.com/igot](https://vimeo.com/igot)

**Fundraising:**

- [https://crowdfund.ucsf.edu/project/541c8b5909206564a0807c11](https://crowdfund.ucsf.edu/project/541c8b5909206564a0807c11)
IGOT Activities: (2006-present)

- Established partnerships with >10 different academic institutions in Asia, Latin America, and Africa
- Supported research through direct support (review, financing) of public health projects by trainees and programs
- Developed teaching courses for “front-line” providers
- Sponsored academic leaders to visit key meetings
- Created sustainable exchange program opportunities
2012 Knowledge Exchange Highlights

- Formalized partnerships in Ghana and Tanzania
- 25 attendees at 1st annual research symposium
- 6 global scholars attended OTI trauma course
- Ghanaian surgeon hosted at AAOS Educators Course
- Pakistani surgeon hosted at SFGH for observership
- Mexican resident completed one-month rotation at SFGH
- 6 Japanese residents completed international resident rotation
- OTA (Matityahu) and AAOS (Coughlin) International Committees
IGOT’s Global Partnerships

- *Hospital Antonio Lenin Fonseca: Managua, Nicaragua
- *Hospital Rehabilitation for Disabled Children: Katmandu, Nepal
- *Komfo Anokye Teaching Hospital: Kumasi, Ghana
- *Muhimbilli Orthopaedic Institute: Dar Es Salaam, Tanzania
- *Queen Elizabeth Hospital: Blantyre, Malawi
- Mulago Orthopaedic Hospital: Kampala, Uganda
- Black Lion Hospital: Addis Ababa, Ethiopia
- MOI Teaching and Referring Hospital: El Doret, Kenya
- King Edward Medical University and Mayo Hospital: Lahore, Pakistan
- National Military Academic Hospital NMAH: Kabul, Afghanistan
- CIMEQ Hospital: Havana, Cuba

*UCSF Resident Elective Sites
Global Knowledge Exchange

5 Resident Elective Sites, ~60 International Observers Representing 25 countries
SMART Course | A Global Impact

- 160 Unique participants
- Representing 27 developing countries
- 1 Year Utilization (2012 Summit) 620 Flaps Attempted, 574 Successful & 121 Amputations Avoided (93%)
- 77.5% are from teaching institutions & have taught 28 others skills gained from the course "teach the teachers"
- 2014 evolved to in-Country model: MOI Tanzania Trauma Course & International SMART Course
- https://crowdfund.ucsf.edu/smart
MOI Trauma Course 2013
New Technologies

- MOOC (Massive on-line open courses)
  - edX and Coursera
- VuMedi (video education platform)
- You-Tube (video sharing)
- AAOS, OTA, AO web portals
IGOT’s Research

- Topics of focus:
  - Adult trauma | pediatric trauma | disaster management | mobile health technologies | cost effectiveness | capacity building | *Process improvement | Health systems-strengthening
- +12 ongoing research projects
- 62 publications to date
- 10 (2014) 5 (2015) abstract podium presentations | 70 to date
Global Advocacy & Leadership
Bay Area Global Health Film Festival

2013: Global Surgery

2014: Road Traffic Safety
Locally…and Globally

2015: Mini-Festival @SF International Trauma Course

**2015: Rehab Locally…and Globally**
Locally Driven Impact

Orthopaedic Healthcare Worldwide

Collaborative Partnerships and the Future of Global Orthopaedics

Saam Morshed MD, PhD, MPH, David W. Shearer MD, MPH, R. Richard Coughlin MD, MSc
Synergy for Success: The Trauma and Orthopaedic Program in Kumasi, Ghana
Joint effort with Ghana College of Physicians and Surgeons to create Ghana’s second “orthopaedic trauma training program” in Kumasi
Collaborators

- Affiliated with Kwame Nkrume University of Science and Technology (KNUST)
- AAOS
- HVO/OO
- OTA
- University of Utah
- IGOT/UCSF
- Ghana Bank (Funding)
Progress to date

- Trauma Ortho Surgeons tripled
- Resident Award paper at OTA
- 3 papers presented at WACS-Kumasi
Stakeholders

- WHO
- International Associations (AAOS, EFFORT, SICOT)
- Regional (WACOS, COSECSA)
- National (Ghana College of Surgeons)
- Universities (Makerere, Muhimbili, Kumasi)
- NGOs (IGOT, SIGN, OO, AO, PIH)
- Civil Society (Rotary-Polio)
- Hospitals
- Physicians and Patients
Success/Sustainability Possible

- Political Will-Leadership
- Broad Partnership of Stakeholders
- Public-Private partnerships
- International Funding
- Leverage of Technologies
Thank You!

Acknowledgements: Richard Coughlin, Amber Caldwell